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June 7, 1999



The Honorable Gary E. Walsh
Executive Director
South Carolina Public Service Commission
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: *Application of Broad River Energy LLC for Certificate of Environmental Compatibility and Public Convenience and Necessity*

Dear Mr. Walsh:

Please find enclosed the original and ten (10) copies of the Application of Broad River Energy LLC (the "Company") for a Certificate of Environmental Compatibility and Public Convenience and Necessity, pursuant to S.C. Code Ann. § 58-33-120(19976). The Company has served copies of the Application on those persons or agencies which S.C. Code Ann. § 58-33-120(2) (1976) requires. In addition, the Company has arranged for publication of notice of filing of the Application which S.C. Code Ann. § 58-120(3) (1976) requires.

Please process this Application in accordance with the Commission's rules of practice and procedure. Please notify me of the Docket Number and the anticipated date for the hearing in this matter at your earliest convenience. Since I am committed to teach a course at the University of South Carolina School of Law on Wednesdays, beginning in the fall semester, I would appreciate your consideration in scheduling the hearing to avoid a conflict with that commitment.

Please stamp the extra copy of the Application as "Received" and return it with our courier.

Thank you for your time and attention to this matter. If you have any questions with respect to this matter, please do not hesitate to contact me.

Very truly yours,

Robert T. Bockman

RTB/pwc
**Via Hand Delivery**

BEFORE
THE PUBLIC SERVICE COMMISSION
OF
SOUTH CAROLINA
Docket No. 99-853 -E

IN RE: Application of Broad River Energy LLC for Certificate of Environmental Compatibility and Public Convenience and Necessity

**APPLICATION**

BROAD RIVER ENERGY LLC (the "Company"), an affiliate of SkyGen Energy LLC ("SkyGen"), submits this Application for a Certificate of Environmental Compatibility and Public Convenience and Necessity to construct and operate a generating plant for the production of electric power and energy in the vicinity of Gaffney, South Carolina, as more fully described in this Application and attached exhibits. The Company submits this Application pursuant to S.C. Code Ann. §§ 58-33-10, et seq. (1976). In support of the relief which it seeks, the Company respectfully submits the following information:

1. The Company is a limited liability company organized under the laws of the State of Delaware, with its principal place of business in Northbrook, Illinois. The Company is qualified to transact business in the State of South Carolina.

2. The Company intends to construct and operate a three-unit simple cycle combustion turbine generating plant with a nominal net capacity of 500MW (the "Broad River Energy Center"). The Company expects the Broad River Energy Center to be in commercial operation by June 2001. The Broad River Energy Center will be located on a 60.35-acre tract east of the city of Gaffney in Cherokee County, South Carolina. The Project Description, which is attached to this Application and which is incorporated by reference, more fully describes the technical details of the systems and facilities and the location of the Broad River Energy Center.

3. The Broad River Energy Center will utilize three combustion turbine generating units operating in simple cycle mode to produce approximately 500KW of electrical output. Each of the combustion turbine units will be enclosed in its own weather-tight acoustical enclosure and each unit will have an individual exhaust stack. A separate building will house control, maintenance and administrative operations. The site for the Broad River Energy Center will include tanks for the storage of fuel oil, raw water and demineralized water.

4. The generating facilities will interconnect with the existing 230kV transmission lines of Duke Electric Transmission, which cross the southern portion of the site.

5. The Broad River Energy Center will connect with the natural gas pipeline operated by Williams Gas Pipelines-Transco, which likewise crosses the southern portion of the site.

6. As the Project Description demonstrates, the Company anticipates that the impacts on water and air quality and on natural resources from the construction and operation of the Broad River Energy Center will be minimal and not adverse.

7. As the demonstration of need for the Broad River Energy Center, the Project Description summarizes the Power Purchase Agreement, between the Company and Carolina Power and Light Company ("CP&L"), dated December 31, 1998 ("PPA"), by which CP&L has agreed to purchase electric capacity and energy from the Broad River Energy Center. Under the terms of the PPA, the Company is obligated to provide CP&L capacity and energy commencing on June 1, 2001.

8. As required by S.C. Code Ann. § 58-33-120(3) (1976), the Company has provided public notice of its intention to submit this Application. A copy of the notice which the Company caused to be published is attached to this Application. The Company will submit the appropriate Affidavits of Publication upon receipt.

9. As required by S.C. Code Ann. § 58-33-120(2) (1976), the Company has caused a copy of this Application to be served on those officials or persons which Section 58-33-120(2) identifies. The attached Certificate of Service demonstrates proof of service of this Application.

10. Correspondence and communications with respect to this Application should be directed to the following:

Robert T. Bockman, Esquire
McNair Law Firm, P.A.
Post Office Box 11390
Columbia, SC 29211
(803) 799-9800

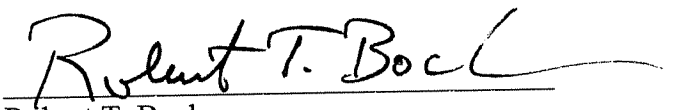
and

Broad River Energy, LLC
% SkyGen Energy, LLC
ATTN: Bryan Schueler
650 Dundee Road, Suite 350
Northbrook, IL 60062
(847) 559-9800 Ext. 314

WHEREFORE, having complied with the provisions of S.C. Code Ann. §§ 58-33-120 (1976), the Company respectfully requests this honorable Commission to set this matter for hearing in accordance with S.C. Code Ann. § 58-33-130(1) (1976), and issue the proper certificate for the construction and operation of the Broad River Energy Center as this Application describes.

Respectfully submitted,

McNair Law Firm, P.A.
Post Office Box 11390
Columbia, SC 29211
(803) 799-9800

By: 
Robert T. Bockman

June 7, 1999
Columbia, South Carolina

BROAD RIVER *ENERGY* LLC

skygen

# PROJECT DESCRIPTION

# FOR THE

# BROAD RIVER ENERGY CENTER

CHEROKEE COUNTY, SOUTH CAROLINA

SUBMITTED TO:
THE PUBLIC SERVICE COMMISSION
OF
SOUTH CAROLINA

JUNE 7, 1999

TABLE OF CONTENTS

## LIST OF FIGURES AND TABLES

# 1.0 INTRODUCTION

This Project Description is being submitted by Broad River Energy LLC ("Broad River"), an affiliate of SkyGen Energy LLC ("SEL"), in support of the application for a Certificate of Environmental Compatability and Public Convenience and Necessity from the Public Service Commission of South Carolina for the proposed Broad River Energy Center facility.

The Broad River Energy Center was proposed in response to a Request for Proposal for Power Purchase Agreement ("RFP"), issued by Carolina Power & Light ("CP&L"). As a result of this RFP, CP&L executed a Power Purchase Agreement dated December 31, 1998, under which Broad River will develop the Broad River Energy Center, and CP&L will purchase the electrical output of the facility.

The Broad River Energy Center will be a three-unit simple cycle combustion turbine generating plant which will have a nominal net capacity of 500 MW. The facility is planned to be in commercial operation by June, 2001.

## 2.0 POWER PURCHASE AGREEMENT SUMMARY

This section provides a summary of the terms and conditions of the Power Purchase Agreement ("PPA") dated December 31, 1998 between Broad River Energy LLC (Broad River) and Carolina Power and Light Company (CP&L). Broad River will construct, own, and operate an peaking electric generating facility to be located in Cherokee County, South Carolina and sell electric energy and capacity from the facility to CP&L.

The term of the PPA commences on December 31, 1998, the "Effective Date", and extends to a date which is 15 years from the last day of the month in which the "Commercial Operation Date" occurs unless terminated or extended. CP&L has the option to renew the PPA for an additional 5 year term with 365 days notice prior to the expiration of the current term. The sale and purchase of energy and capacity will begin on the Commercial Operation Date and continue for the remainder of the term of the PPA. The Scheduled Commercial Operation Date is June 1, 2001.

Broad River is responsible to permit, construct, own, operate and maintain the facility in accordance with good utility practice. The facility will be equipped with automatic generation control and be fully dispatchable by CP&L. Broad River guarantees the facility capacity, heat rate and equivalent forced outage factor to CP&L.

Broad River is responsible for having the project interconnected to the Duke transmission system for delivering the power to the electric grid. CP&L is responsible for all wheeling and transmission arrangements. Broad River is responsible for having the project interconnected to the natural gas pipeline and to have a fuel oil storage tank on the project site. CP&L is responsible for the purchase and delivery of both natural gas and fuel oil to the facility.

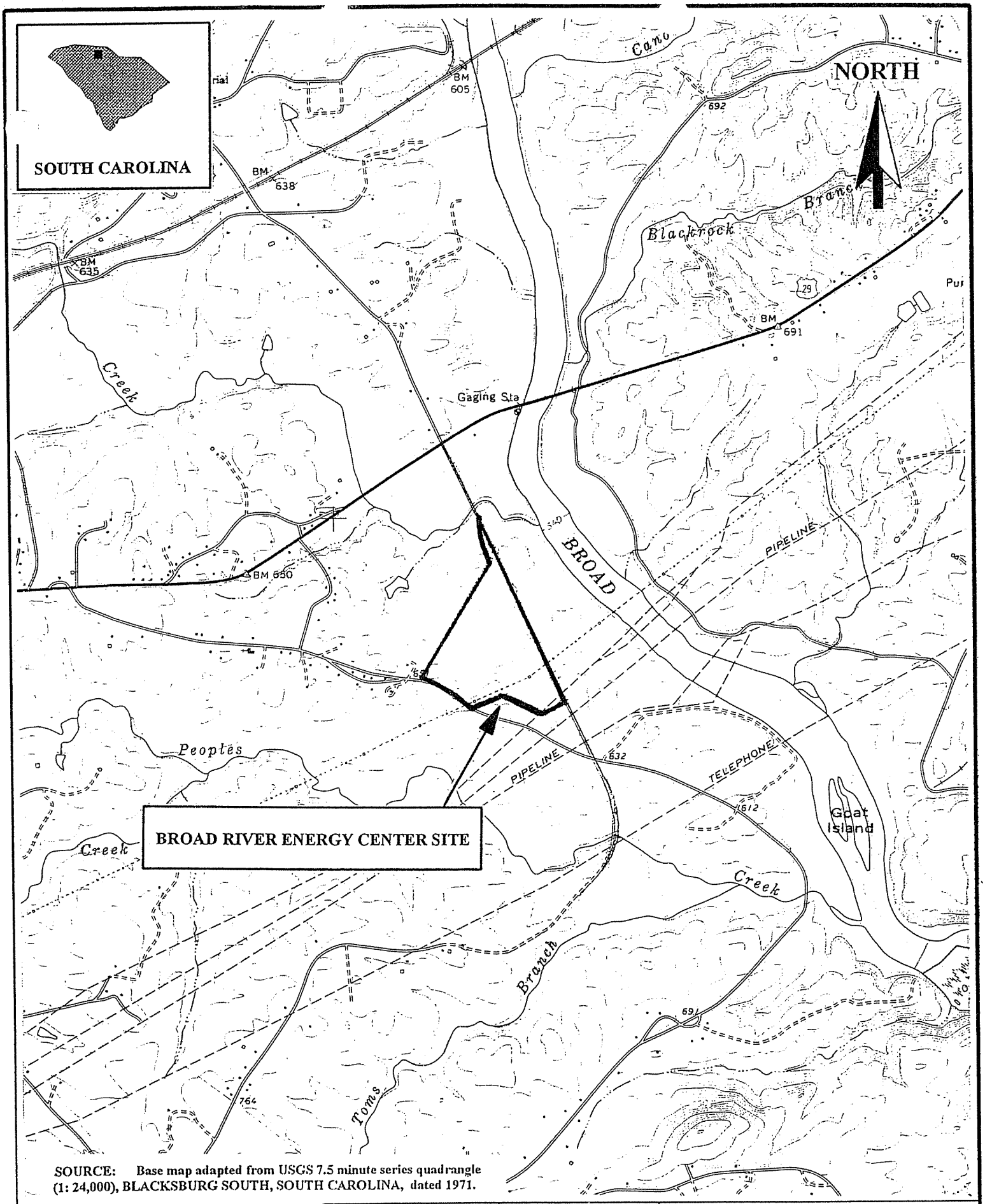
# 3.0 FACILITY LOCATION

## 3.1 General

The site for the Broad River Energy Center is located just outside of Gaffney in Cherokee County, South Carolina. The location of the site is shown in Figure 1, Site Location Map, and described in further detail below.

## 3.2 Project Site

The project site is located in Cherokee County approximately 2 miles East of Gaffney as shown in Figure 2, Project Site Map. The site consists of a 60.35 acre parcel bounded on the East side by South Carolina Highway 329 and on the West side by Old Ford Road. The Southern edge of the parcel is bounded by the Williams Gas Pipelines-Transco ("Transco")natural gas line and the Duke Electric Transmission ("Duke") electric lines. The project will connect to the Transco line for its natural gas supply and will connect to the Duke transmission lines for export of its power generation and for supply of its station service power. The parcel is tree covered and of rolling terrain.




SOURCE: Base map adapted from USGS 7.5 minute series quadrangle (1: 24,000), BLACKSBURG SOUTH, SOUTH CAROLINA, dated 1971.

SCALE (Feet)

0 1000 2000

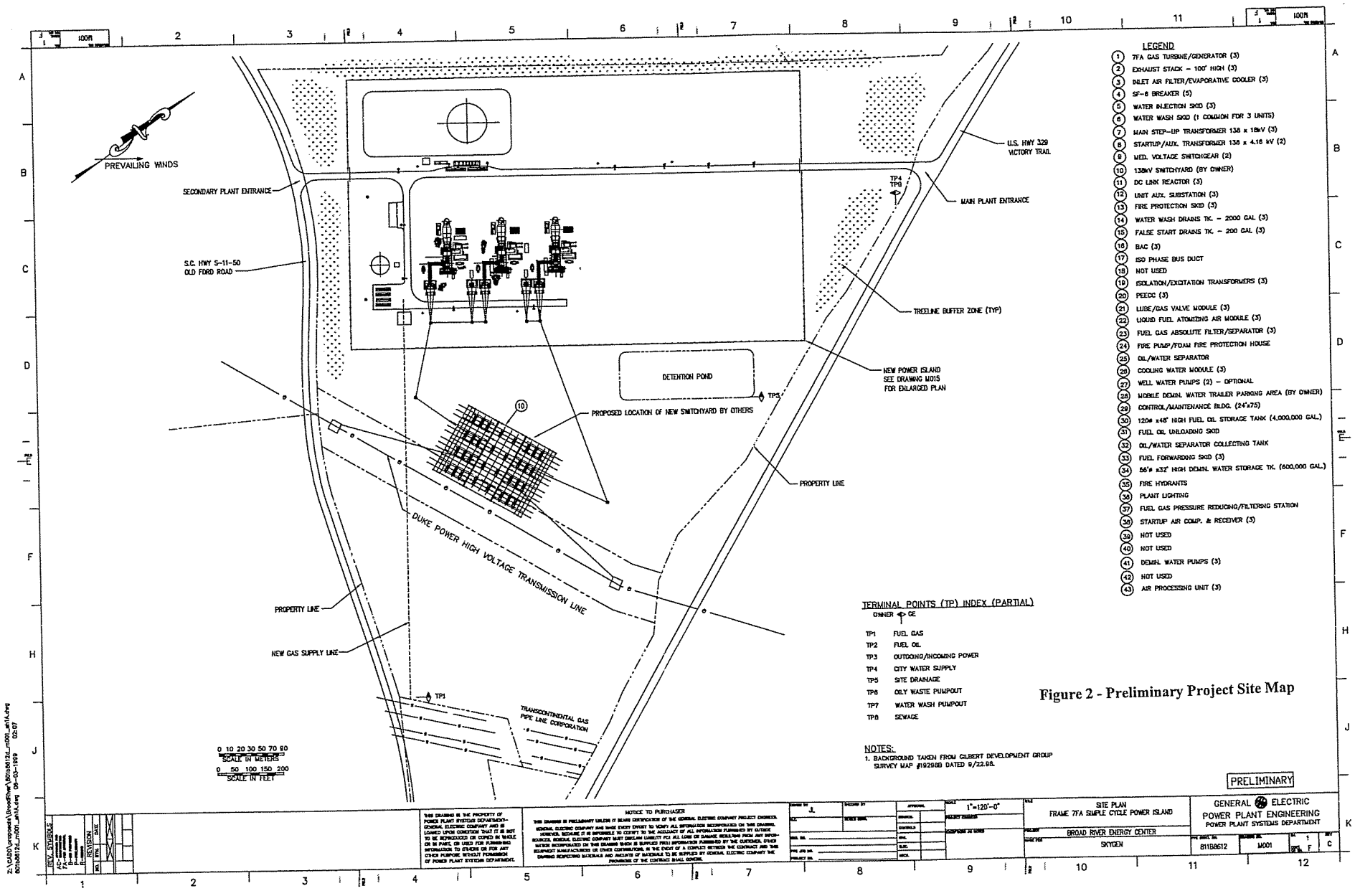
500 1500

WESTON MANAGERS DESIGNERS/CONSULTANTS

| | |
|---|---|
| FIGURE | 2-1 |
| DATE | 3/18/99 |
| REVISION | 0 |
| DRAWN BY | EJM |
| FILE | BASE.DWG |

SITE LOCATION MAP

BROAD RIVER ENERGY CENTER
CHEROKEE COUNTY, SC




LEGEND

1. 7FA GAS TURBINE/GENERATOR (3)
2. EXHAUST STACK – 100' HIGH (3)
3. INLET AIR FILTER/EVAPORATIVE COOLER (3)
4. SF-6 BREAKER (5)
5. WATER INJECTION SKID (3)
6. WATER WASH SKID (1 COMMON FOR 3 UNITS)
7. MAIN STEP-UP TRANSFORMER 138 x 18kV (3)
8. STARTUP/AUX. TRANSFORMER 138 x 4.16 kV (2)
9. MED. VOLTAGE SWITCHGEAR (2)
10. 138kV SWITCHYARD (BY OWNER)
11. DC LINK REACTOR (3)
12. UNIT AUX. SUBSTATION (3)
13. FIRE PROTECTION SKID (3)
14. WATER WASH DRAINS TK. – 2000 GAL (3)
15. FALSE START DRAINS TK. – 200 GAL (3)
16. BAC (3)
17. ISO PHASE BUS DUCT
18. NOT USED
19. ISOLATION/EXCITATION TRANSFORMERS (3)
20. PEECC (3)
21. LUBE/GAS VALVE MODULE (3)
22. LIQUID FUEL ATOMIZING AIR MODULE (3)
23. FUEL GAS ABSOLUTE FILTER/SEPARATOR (3)
24. FIRE PUMP/FOAM FIRE PROTECTION HOUSE
25. OIL/WATER SEPARATOR
26. COOLING WATER MODULE (3)
27. WELL WATER PUMPS (2) – OPTIONAL
28. MOBILE DEMIN. WATER TRAILER PARKING AREA (BY OWNER)
29. CONTROL/MAINTENANCE BLDG. (24'x75')
30. 120ø x48' HIGH FUEL OIL STORAGE TANK (4,000,000 GAL.)
31. FUEL OIL UNLOADING SKID
32. OIL/WATER SEPARATOR COLLECTING TANK
33. FUEL FORWARDING SKID (3)
34. 56'ø x32' HIGH DEMIN. WATER STORAGE TK. (600,000 GAL.)
35. FIRE HYDRANTS
36. PLANT LIGHTING
37. FUEL GAS PRESSURE REDUCING/FILTERING STATION
38. STARTUP AIR COMP. & RECEIVER (3)
39. NOT USED
40. NOT USED
41. DEMIN. WATER PUMPS (3)
42. NOT USED
43. AIR PROCESSING UNIT (3)

TERMINAL POINTS (TP) INDEX (PARTIAL)

OWNER ◆ GE

| | |
|---|---|
| TP1 | FUEL GAS |
| TP2 | FUEL OIL |
| TP3 | OUTGOING/INCOMING POWER |
| TP4 | CITY WATER SUPPLY |
| TP5 | SITE DRAINAGE |
| TP6 | OILY WASTE PUMPOUT |
| TP7 | WATER WASH PUMPOUT |
| TP8 | SEWAGE |

NOTES:

1. BACKGROUND TAKEN FROM GILBERT DEVELOPMENT GROUP SURVEY MAP #19298B DATED 9/22.98.

**Figure 2 - Preliminary Project Site Map**

PRELIMINARY

REV. SYMBOLS
AC- ASME CODE
FA- ASME CODE
P- PRELIMINARY
F- FINAL

| REVISION | DATE |
|---|---|
| PRELIMINARY | |



| | |
|---|---|
| DRAWN BY | J. |
| DESIGNED BY | |
| SCALE | 1"=120'-0" |
| PROJECT ENGINEER | |
| CUSTOMER AS NOTED | |

SITE PLAN
FRAME 7FA SIMPLE CYCLE POWER ISLAND

BROAD RIVER ENERGY CENTER

SKYGEN

GENERAL ELECTRIC
POWER PLANT ENGINEERING
POWER PLANT SYSTEMS DEPARTMENT

| | | | |
|---|---|---|---|
| 811B8612 | M001 | SH 1 | REV C |

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# 4.0 FACILITY DESCRIPTION

## 4.1 General Description

The Broad River Energy Center will utilize three combustion turbine generator (CTG) units operating in simple cycle mode to produce a total net electrical output of approximately 500 MW. Each of the combustion turbine units will be enclosed in its own weather-tight acoustical enclosure, and each will have its own exhaust stack. Three natural gas fired boilers will be utilized to generate steam for steam power augmentation to enhance the power production of the combustion turbines.

Control, maintenance, storage and administrative facilities will be located in a metal sided building. Tanks will be provided on site for the storage of distillate oil, raw water and demineralized water. In addition, an area for parking portable or permanent demineralization units will be located next to the water storage tank.

A electric substation consisting of step-up transformers and circuit breakers will be located adjacent to the CTG's. The substation will increase the generator voltage of 18 kV to 230 kV for delivery to the Duke transmission system. A electric switchyard that will loop in the existing Duke 230 kV transmission lines to accept the electric output of the facility will be located adjacent to the existing Duke transmission lines. The substation and switchyard will be connected by above ground high voltage cables.

The preliminary plant layout on the site is shown in Figure 3, Preliminary Site Layout.

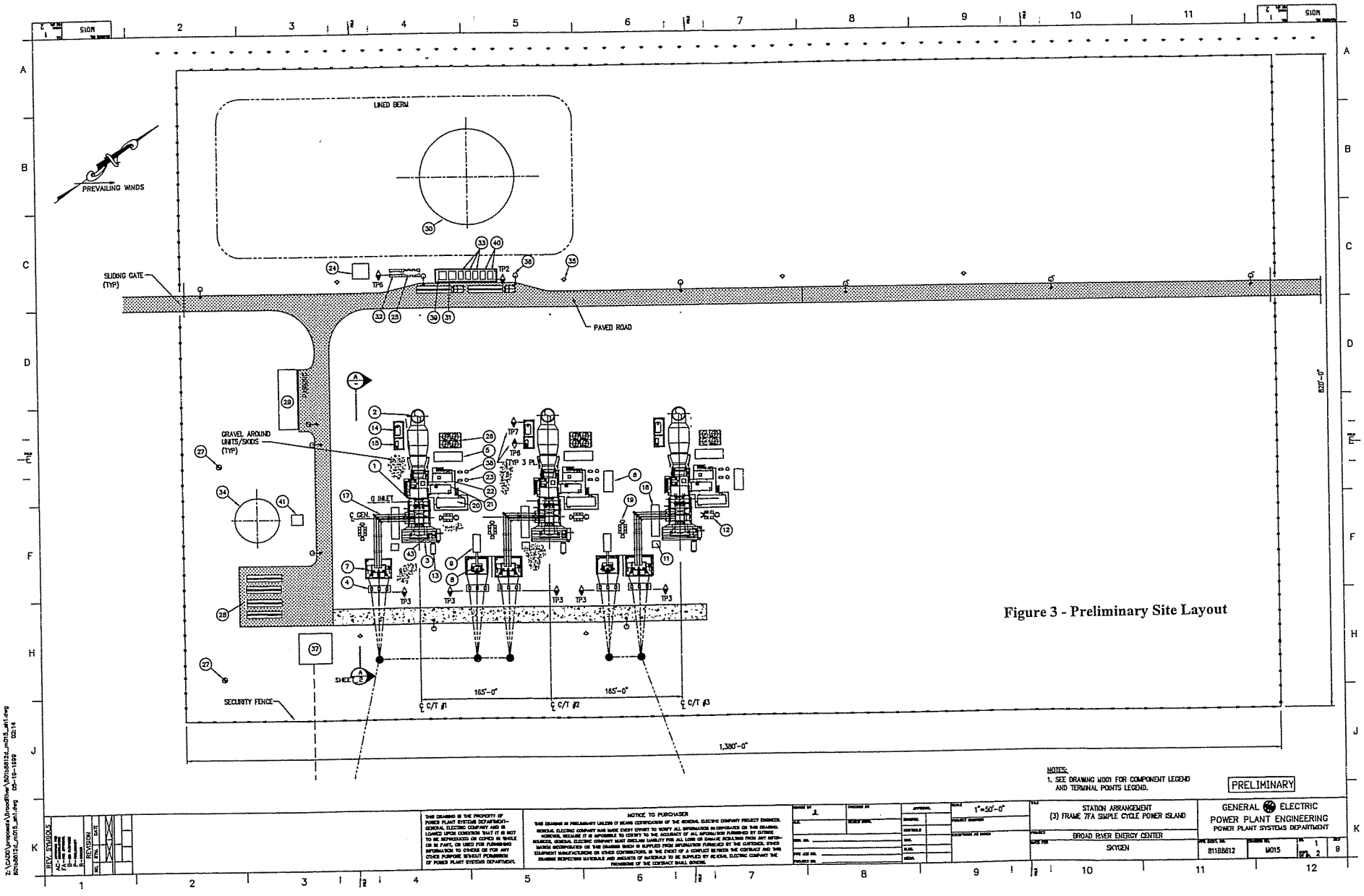


**Figure 3 - Preliminary Site Layout**

4.2 List of Major Equipment:

The Broad River Energy Center will consist of the following major components:

a. Three (3) combustion turbine generator sets complete with inlet air and exhaust system, controls and auxiliary equipment. The units will be General Electric 7FA or equivalent.

b. Combustion turbine inlet air evaporative cooling system.

c. One (1) Distillate fuel oil storage facility with a maximum usable capacity of 4,000,000 gallons.

d. Three (3) natural gas fired package boilers.

e. Process water system, consisting of a connection to the Gaffney Board of Public Works water supply, a raw water storage tank, portable or permanent demineralization units and a demineralized water storage tank.

f. Metal sided building housing the control room and control equipment, as well as administrative offices, maintenance and storage areas.

g. Electrical substation consisting of generator step-up transformers, station auxiliary transformers and in plant electrical gear.

h. Electrical switchyard consisting of switching equipment to connect the facility output to the Duke transmission system.

i. Fire protection system for the combustion turbine/generator sets and balance of plant equipment.

j. Battery system and Un-interruptible Power Supply.

k. Control system for auxiliary equipment.

4.3 Equipment Description:

a. Combustion Turbine Generator System

1) Combustion Turbine: Each combustion turbine generator will be a General Electric PG7241FA (or equivalent) combustion turbine with a net electrical output of approximately 151 MW at the design ambient conditions of 100° F and 40% relative humidity without steam power augmentation. The major components of a combustion turbine are the compressor, combustor and turbine. Outside air is drawn into the unit and is increased in pressure as it passes through the compressor. High pressure air from the compressor is raised in temperature by the burning of fuel in the combustor. Hot gases from the combustor are expanded through the turbine, producing power. Some of this power output is utilized to drive the compressor, with the remaining output available to turn the generator. The compressor, turbine and generator all operate on a common shaft which rotates at 3,600 revolutions per minute (RPM) during operation, producing 60 Hz electrical output from the generator.

The primary fuel for the combustion turbines will be natural gas with low sulfur distillate oil (<0.05%) as a back-up. The combustion turbines will have the capability of fuel changeover during operation. The combustors will utilize Dry Low NOx technology to reduce emissions while firing natural gas and water injection while firing oil.

Steam may be injected into the combustor when firing natural gas for power augmentation.

2) Generator: The generator will be a hydrogen-cooled unit operating at 18 kV. The generator is automatically synchronized through the control system.

b. Inlet Air System

The inlet air system directs outside air through a filter and an evaporative cooler and into the compressor section of the CTG. The filter removes dust and other particles from the air. The evaporative cooler is utilized during periods of high ambient temperature to cool the ambient air drawn into the unit by increasing the humidity of the air. The cooler and denser air results in an increase in the power output of the combustion turbine.

c. Distillate Fuel Oil Facilities

A fuel oil storage tank system with a maximum usable capacity of approximately 4,000,000 gallons will be utilized for distillate oil storage. A secondary containment for a minimum of 110% of the tank capacity will be provided by either an earthen berm or steel wall surrounding the tank to provide protection against spills. A 100% redundant fuel pumping system and its associated piping will be furnished to deliver oil from the fuel oil storage tank to the combustion turbines. One or more fuel oil tanker truck unloading stations will be provided for transferring oil to the tanks.

d. Process Water Systems

The process water system provides water to meet the needs of the facility's power generation process. The primary uses of process water will be for evaporative cooling of the turbine inlet air, for feedwater supply of the package boilers to generate steam, and for injection into the combustion turbine units for the control of nitrogen oxide emissions when the turbines are firing fuel oil.

Process water will be supplied to the facility by a connection to the Gaffney Board of Public Works through either a connection to their line that runs adjacent to Old Ford Road or an extension of the line that runs on SC Highway 329. Water from the connection will be directed to a raw water storage tank. In addition to storing water for the facility's process water needs, the raw water storage tank will also serve as the water supply for the facility's fire protection system.

High-quality demineralized water must be provided for the combustion turbine water injection system and for the package boiler feedwater. Demineralized water will be supplied using either an installed demineralization system or portable demineralizers delivered to the facility by truck and removed for regeneration at an off-site location. The demineralizer will draw water from the raw water storage tank. Demineralized water will be stored in a separate demineralized water storage tank.

e. Buildings

The combustion turbine generator units will each be housed in their own weather-tight acoustical enclosure. A separate metal-sided building will be

furnished to house the control room and a maintenance and storage area. A number of smaller pre-engineered buildings will be installed to house various combustion turbine and balance of plant auxiliary equipment.

f. Electrical System

The electrical systems and associated equipment will be designed to provide a reliable source of power for all auxiliaries required for successful plant operation and for increasing the voltage of the generated power for delivery to the transmission system. The system will be designed with sufficient flexibility and redundancy to provide continuity of service and minimum maintenance. The electrical systems will include the following equipment:

- Interface with the Duke 230 kV electrical system
- 230 kV AC switchyard
- Three (3) 18 kV to 230 kV generator step-up transformers
- Two (2) station auxiliary transformers
- 18 kV AC distribution system
- 4160 V AC distribution system
- 480 V AC distribution system
- Protective relay and control systems
- Motors
- 125-V DC distribution system
- 120-V AC Un-interruptible Power Supply system.
- 277/480-V AC and distribution systems
- Grounding, lightning and cathodic protection systems
- Lighting system
- Communication system
- Trays and conduits
- Power, control, and instrumentation cables

- Freeze protection

1) 230 kV AC Switchyard: The plant outdoor switchyard will be an aluminum open-bus type station consisting of a main bus configuration connecting each step-up transformer, plant auxiliary/start-up transformer and the utility interface 230 kV transmission lines.

2) Generator Step-up Transformers: The plant will be provided with one generator step-up transformer per unit to increase the 18 kV generator voltage to the switchyard/transmission line voltage of 230 kV.

3) 18 kV AC Distribution System: Electric power will be generated at 18 kV from the turbine-generator unit. The power thus generated will be transmitted via isolated phase buses routed overhead to the generator step-up transformers located in the switchyard. Auxiliary power for the plant loads will be available through the two step-down station auxiliary transformers for use in the plant at 4160 VAC and 480 VAC.

4) 4160 and 480 V AC Distribution Systems: The 4160 V auxiliary transformer will be located outdoors in the switch yard. The 4160 V switchgear and 480 V substation will be located in a dedicated electrical equipment room.

g. Controls

The combustion turbine Original Equipment Manufacturer controls package will be utilized for control of the CTG's. The control system will be located

in the central control room and will operate all auxiliary plant equipment and systems. Auxiliary systems such as fuel unloading and the package boilers will be controlled with local and remote programmable logic controllers as required by the specific system.

h. Fire Protection

Fire protection equipment will be installed in accordance with NFPA Standard 850, "Recommended Protection For Fire Prevention For Electric Generating Facilities". Water necessary for the Fire Protection system will be supplied from the connection to the Gaffney Board of Public Works connection. A backup supply of water will be maintained in the on site raw water storage tank.

## 4.4 Plant Operation

The Broad River Energy Center will operate as a fully-dispatchable facility; starting up, shutting down and changing load as directed by CP&L. The facility will be operated as a peaking plant, running as necessary to meet the peak electrical loads of the CP&L system. The projects air permit application has a proposed limit of 3,000 hours annually.

The plant will be designed to be operated as an attended facility only while in operation. Start up and control of the units will be done from a central control room. All employees involved in operating and maintenance of this plant will be employees of SEL or a qualified contractor. The plant operating staff will consist of approximately five employees. The employees will be plant Operators/Maintenance technicians.

# 5.0 INTERCONNECTION FACILITIES

## 5.1 Electric Interconnection

Duke Electric Transmission's ("Duke") double circuit 230 kV London Creek Transmission lines cross the southern portion of the site. The Project will interconnect with these lines through this new switchyard. The new switchyard will be located adjacent to the existing London Creek Transmission lines at the southern portion of the site.

## 5.2 Natural Gas Pipeline

To supply natural gas to the facility a connection will be made to the Williams Gas Pipelines - Transco ("Transco") gas pipelines that crosses the southern most portion of the site. The length of the connection between the facility and the Transco pipelines will be approximately 1500 feet, depending upon the final site location and pipe routing. A metering station will be added for metering the gas usage at the facility either at the interconnection to the pipelines or at the facility.

# 6.0 ENVIRONMENTAL IMPACTS

## 6.1 Air Emissions

The facility will generate air emissions of Nitrogen Oxides (NOx), Carbon Monoxide (CO), Volatile Organic Compounds (VOCs), particulate matter, Sulfur Dioxide ($SO_2$) and Sulfuric Acid Mist ($H_2SO_4$). The emissions will be generated from the combustion of natural gas or distillate oil in the combustion turbines and the combustion of natural gas in the package boilers. The distillate oil storage tank is also a source of VOC's.

Nitrogen oxides are formed in the turbine combustors primarily as a result of the high temperatures experienced during the combustion process. In order to limit the formation of nitrogen oxides a Dry Low NOx combustion system that is based upon a lean burn pre-mixed combustion process will be utilized for natural gas firing. Water injection into the turbine combustors will be utilized to reduce the temperatures experienced in the combustion zone and minimize the production of nitrogen oxides when firing distillate oil. In this manner, nitrogen oxide emissions will be limited to 15 ppm when firing natural gas and 42 ppm when firing distillate oil.

Sulfur dioxide emissions are a direct result of the fuel bound sulfur. Natural gas is one of the cleanest burning fuels available and typically contains no more than a trace of sulfur. This small amount of sulfur is introduced into the natural gas as a mercaptan for its odor producing quality. Therefore, the sulfur dioxide emissions while combusting natural gas will be negligible. In order to minimize the emissions of sulfur dioxide when combusting distillate oil, low sulfur fuel (0.05% sulfur or less) will be utilized.

Table 1, Estimated Potential Annual Air Emissions, provides further detail on the projected air emission data. The site is currently designated to be in attainment for all criteria pollutants, and based on air modeling results, the facility will have a minimal impact on air quality and will comply with all applicable state and federal requirements.

**TABLE 1**

**Estimated Potential Annual Air Emissions**

| | Tons per Year |
|---|---|
| NOx | 622 |
| CO | 258 |
| $SO_2$ | 74 |
| VOC | 19 |
| $H_2SO_4$ | 8.3 |
| Particulate Matter (PM/PM10) | 103 |

An Prevention of Significant Deterioration application for an air emission permit to construct has been filed with the air division of the South Carolina Department of Health and Environmental Control (DHEC).

## 6.2 Water Use

The primary use of process water at the facility will be for injection into the combustion turbines for the control of nitrogen oxide emissions when firing oil and for feedwater supply to the package boilers to generate steam for steam power augmentation when firing natural gas. During high ambient temperature operation, water will be used by the evaporative coolers to reduce the temperature of the turbine inlet air. Process water will be supplied from a connection to the Gaffney Board of Public Works.

## 6.3 Wastewater Discharge

Wastewater production from plant operation is expected to be minimal. The primary source of process wastewater is expected to be blowdown from the evaporative coolers and the package boilers. Additional process wastewater will be produced intermittently by various equipment drains. Wastewater from these sources will be routed through an oil-water separator prior to discharge. Due to the small facility operating staff, sanitary wastewater production would be minimal.

Process wastewater and sanitary waste will be discharged to the Gaffney Board of Public Works sewer line that runs adjacent to the site.

## 6.4 Stormwater Discharge

During construction, guidelines set forth by DHEC will be adhered to for managing stormwater. During operation, any potentially-contaminated runoff will be directed to an oil water separator prior to discharge.

## 6.5 Wetland and Aquatic Resource Impacts

A preliminary wetlands review was conducted on the entire 60.35 acre site. The review identified four areas each generally less than 400 square feet with a combined area of less than 0.05 acres that would be considered to be a wetland. There are no permits required because of the minimal area of wetlands that exists on the site. In addition, the construction of the facility is planned in an area away from the identified areas and there are no impacts anticipated.

PUBLISHED NOTICE

Arrangements for publication of the attached Notice have been made in the following newspapers during the week of June 7, 1999.

*The Gaffney Ledger*, Gaffney, South Carolina
*The Spartanburg Hearld Journal*, Spartanburg, South Carolina

Publishers' Affidavits will be filed upon receipt.

LEGAL NOTICE

On or about June 7, 1999, Broad River Energy LLC, an affiliate of SkyGen Energy LLC, will file an application with the South Carolina Public Service Commission for a certificate of environmental compatibility and public convenience and necessity under the South Carolina Utility Facility Siting and Environmental Protection Act, S.C. Code Ann. §§ 58-33-10, et seq. (1976). By its application, Broad River Energy LLC will seek approval to construct and operate a three-unit simple cycle combustion turbine generating plant for the production of electric power and energy on a site east of Gaffney, South Carolina. The plant will have a nominal net capacity of 500MW. The facility, which will be known as the Broad River Energy Center, is anticipated to be in commercial operation by June 2001. Broad River Energy LLC will develop the Broad River Energy Center and will sell the power and energy to Carolina Power and Light Company under the terms of a Power Purchase Agreement.

Further information with respect to the application is available from Robert T. Bockman, Esquire, McNair Law Firm, P.A., Post Office Box 11390, Columbia, SC 29211; telephone number (803) 799-9800.

PROOF OF SERVICE

| | | |
|---|---|---|
| In Re: Application of Broad River Energy LLC for Certificate of Environmental Compatibility and Public Convenience and Necessity | ) | Docket No. 99-___-E |
| | ) | CERTIFICATE OF SERVICE |

I, Pamela W. Cox, do hereby certify that I have this date served, pursuant to S.C. Code Ann. § 58-33-120 (1976), one copy of the foregoing Application of Broad River Energy LLC for a Certificate of Environmental Compatibility and Public Convenience and Necessity to construct a major utility facility upon the following persons by causing said copy to be deposited with the United States Mail, postage prepaid and addressed as follows:

Douglas E. Bryant
Commissioner
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Wayne L. Sterling
Executive Director
South Carolina Department of Commerce
Post Office Box 927
Columbia, SC 29202

Alton C. Boozer
Chief
Bureau of Water
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

James A. Joy, III, P.E.
Chief
Bureau of Air Quality Control
South Carolina Department of Health and Environmental Control
2600 Bull Street
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Dr. Paul A. Sandifer
Director
South Carolina Department of Natural Resources
Post Office Box 167
Columbia, SC 29202

William R. Jennings
Executive Director
South Carolina Department of Parks, Recreation and Tourism
Edgar A. Brown Building, Suite 110
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Rodger E. Stroup
Director
South Carolina Department of Archives and History
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J. Hugh Ryan
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South Carolina Forestry Commission
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Columbia, SC 29221

Elizabeth S. Mabry
Executive Director
South Carolina Department of Transportation
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Columbia, SC 29202

Ben Clary
Interim Administrator, Cherokee County
210 N. Limestone Street
Gaffney, SC 29342-0866

Donnie L. Hardin
General Manager, Board of Public Works
Post Office 64
Gaffney, SC 29342

Jim Inman
Executive Director
Cherokee County Development Board
225 South Limestone
Gaffney, SC 29342

Francis McCraw
Chairman
Cherokee County Council
210 N. Limestone Street
Gaffney, SC 29342-0866

John G. Brasington
Director
Cherokee County Emergency Preparedness
Post Office Box 1983
Gaffney, SC 29342

The Honorable Vernon L. Sanders
Mayor, City of Gaffney
Post Office Box 2109
Gaffney, SC 29342-2109

The Honorable David A. Hogue
Mayor, Town of Blacksburg
Post Office Box 487
Blacksburg, SC 29702-0487

Robert M. Strother
Executive Director
South Carolina Appalachian Council of Governments
Post Office Box 6668
Greenville, SC 29606

Pamela W. Cox

June 7, 1999

Columbia, South Carolina